MC 87-I-31A(P)

PRELIMINARY REPORT
INDUSTRY SERIES

1987
Census of Manufactures

MC87-I-31A(P)
Issued June 1989

TANNING; INDUSTRIAL LEATHER GOODS; AND SHOES

Industries 3111, 3131, 3142, 3143, 3144, and 3149

INTRODUCTION

This report presents preliminary statistics from the 1987 Census of Manufactures for those establishments classified in the industries listed above. These data will be superseded by a more comprehensive final paperbound report. The method of data collection and use of administrative data are discussed in detail in the appendix.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The definitions of these industries are the same as those used in the 1987 Standard Industrial Classification (SIC) Manual.[1]

INDUSTRY 3111, LEATHER TANNING AND FINISHING

In the 1987 Census of Manufactures, Industry 3111, Leather Tanning and Finishing, had employment of 14.5 thousand. The employment figure was 26 percent below the 19.5 thousand reported in 1982. Compared with 1986, employment in 1987 increased 10 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $2.2 billion.

In 1987, establishments in this industry accounted for 96 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 99 percent. The products primary to this industry appear in table 2 and aggregated to $2.2 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $1.5 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3131, FOOTWEAR CUT STOCK

In the 1987 Census of Manufactures, Industry 3131, Footwear Cut Stock, had employment of 5.1 thousand. The employment figure was 25 percent below the 6.8 thousand reported in 1982. Compared with 1986, employment in 1987 increased 19 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $331.4 million.

In 1987, establishments in this industry accounted for 95 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 94 percent. The products primary to this industry appear in table 2 and aggregated to $335.6 million in 1987.

The cost of materials and services used by establishments in this industry amounted to $189.1 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3142, HOUSE SLIPPERS

In the 1987 Census of Manufactures, Industry 3142, House Slippers, had employment of 3.7 thousand. The employment figure was 51 percent below the 7.5 thousand

[1] **Standard Industrial Classification Manual: 1987.** For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Address inquiries to Bureau of the Census, Industry Division, Washington, DC 20233, or call **Don Wheeler** (301) 763-2510.

U.S. Department of Commerce
BUREAU OF THE CENSUS

For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

C 3.24/8:

READEX FICHE best copy available

reported in 1982. Compared with 1986, employment in 1987 decreased 21 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $203.8 million.

In 1987, establishments in this industry accounted for 96 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 98 percent. The products primary to this industry appear in table 2 and aggregated to $184.1 million in 1987.

The cost of materials and services used by establishments in this industry amounted to $93.2 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3143, MEN'S FOOTWEAR, EXCEPT ATHLETIC

In the 1987 Census of Manufactures, Industry 3143, Men's Footwear, Except Athletic, had employment of 31.5 thousand. The employment figure was 32 percent below the 46.5 thousand reported in 1982.

The total value of shipments for establishments classified in this industry was $2.1 billion.

In 1987, establishments in this industry accounted for 94 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 95 percent. The products primary to this industry appear in table 2 and aggregated to $1.8 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $1.0 billion in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3144, WOMEN'S FOOTWEAR, EXCEPT ATHLETIC

In the 1987 Census of Manufactures, Industry 3144, Women's Footwear, Except Athletic, had employment of 26.6 thousand. The employment figure was 45 percent below the 48.4 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 12 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $1.3 billion.

In 1987, establishments in this industry accounted for 88 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was 90 percent. The products primary to this industry appear in table 2 and aggregated to $1.4 billion in 1987.

The cost of materials and services used by establishments in this industry amounted to $572.4 million in 1987. Data on specific materials consumed appear in table 3.

INDUSTRY 3149, FOOTWEAR, EXCEPT RUBBER, N.E.C.

In the 1987 Census of Manufactures, Industry 3149, Footwear, Except Rubber, N.E.C., had employment of 8.8 thousand. The employment figure was 54 percent below the 19.1 thousand reported in 1982. Compared with 1986, employment in 1987 decreased 4 percent. The 1986 data are based on the Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The total value of shipments for establishments classified in this industry was $394.0 million.

In 1987, establishments in this industry accounted for 81 percent of products considered primary to the industry regardless of the industry in which they were produced (coverage ratio). In 1982, the coverage ratio was also 81. The products primary to this industry appear in table 2 and aggregated to $426.6 million in 1987.

The cost of materials and services used by establishments in this industry amounted to $190.7 million in 1987. Data on specific materials consumed appear in table 3.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate or a consistency review.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM		
Durables	Kenneth Hansen	(301) 763-7304
Nondurables	Michael Zampogna	(301) 763-2510
Current Industrial Reports		
Durables	Malcolm Bernhardt	(301) 763-2518
Nondurables	Thomas Flood	(301) 763-5911
Import/Export Publications	Foreign Trade Division	(301) 763-5140
Industry Analysis and Forecasts	International Trade Administration	(202) 377-4356

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year[1]	Companies[2] (no.)	All establishments[3] Total (no.)	All establishments[3] With 20 employees or more (no.)	All employees Number (1,000)	All employees Payroll (million dollars)	Production workers Number (1,000)	Production workers Hours (millions)	Production workers Wages (million dollars)	Value added by manufacture[4] (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories[4] (million dollars)	Ratios Specialization (percent)	Ratios Coverage (percent)
INDUSTRY 3111, LEATHER TANNING AND FINISHING															
1987 Census	308	338	138	14.5	290.5	12.1	24.4	210.9	743.6	1 496.6	2 214.9	27.6	383.4	98	96
1986 ASM	(NA)	(NA)	(NA)	13.2	249.1	10.9	22.1	181.7	474.9	1 114.8	1 589.1	20.7	264.6	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	14.2	262.5	11.7	23.6	189.4	508.6	1 128.0	1 643.0	23.5	272.7	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	16.7	291.5	14.0	26.7	212.0	573.7	1 220.3	1 813.6	21.8	288.3	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	19.5	332.0	16.2	31.8	242.6	649.5	1 271.3	1 881.7	[5]41.0	313.0	(NA)	(NA)
1982 Census	342	384	172	19.5	310.6	16.2	31.1	225.2	579.8	1 165.1	1 753.0	33.2	267.0	99	99
1981 ASM	(NA)	(NA)	(NA)	20.4	304.2	17.4	33.9	231.3	647.7	1 272.8	1 928.7	[5]47.9	241.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	20.7	281.3	17.5	32.8	207.6	610.0	1 200.4	1 822.7	[5]48.3	242.8	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	21.2	264.9	17.9	33.2	196.7	559.1	1 252.1	1 803.0	[5]43.9	241.3	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	23.0	270.8	19.7	36.4	204.6	564.3	1 041.5	1 579.7	[5]51.1	226.3	(NA)	(NA)
1977 Census	428	465	191	23.0	254.8	19.6	38.2	192.2	535.1	927.6	1 456.1	30.7	187.6	99	99
1976 ASM	(NA)	(NA)	(NA)	23.0	243.9	19.4	38.1	181.4	521.1	816.5	1 326.0	32.6	169.6	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	22.5	220.0	19.2	38.0	165.5	443.5	643.3	1 091.8	22.7	155.0	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	21.7	194.3	18.3	35.4	141.4	397.8	680.4	1 075.5	13.1	158.6	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	23.4	186.5	19.8	37.8	138.2	335.9	744.3	1 081.5	12.8	160.9	(NA)	(NA)
1972 Census	468	517	223	25.7	200.0	22.1	41.9	151.3	368.3	708.0	1 059.5	16.3	149.0	99	99
INDUSTRY 3131, FOOTWEAR CUT STOCK															
1987 Census	115	126	58	5.1	70.1	4.3	8.6	50.0	142.2	189.1	331.4	3.4	39.4	97	95
1986 ASM[6]	(NA)	(NA)	(NA)	4.3	56.3	3.8	6.8	41.2	97.2	149.4	246.5	[5]2.1	27.0	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	5.4	64.5	4.7	8.2	45.5	111.1	168.8	277.3	2.9	34.0	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.0	73.8	5.1	9.3	52.6	128.3	186.5	313.8	2.8	36.3	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	6.3	75.7	5.7	10.6	57.3	142.0	206.7	353.1	4.5	50.1	(NA)	(NA)
1982 Census	149	161	80	6.8	80.8	5.7	10.4	54.4	154.7	212.8	367.8	6.0	48.6	94	94
1981 ASM	(NA)	(NA)	(NA)	9.8	105.5	8.4	15.3	76.7	219.6	270.4	488.4	8.4	53.6	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	10.0	93.1	8.7	15.4	70.4	196.3	234.2	431.5	6.3	43.7	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	9.6	82.3	8.1	13.9	57.0	142.1	218.0	365.8	[5]3.6	38.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	9.4	73.6	8.3	14.0	55.5	117.2	181.4	298.4	[5]3.9	35.8	(NA)	(NA)
1977 Census	174	190	96	8.5	65.3	7.4	13.0	48.8	105.4	159.1	270.6	3.0	31.2	90	92
1976 ASM[6]	(NA)	(NA)	(NA)	8.4	61.0	7.3	13.0	47.3	94.1	160.3	251.5	4.5	25.9	(NA)	(NA)
1975 ASM[6]	(NA)	(NA)	(NA)	7.8	52.6	6.5	11.4	40.6	74.4	136.1	212.3	2.9	20.5	(NA)	(NA)
1974 ASM[6]	(NA)	(NA)	(NA)	6.8	43.0	5.9	9.9	33.3	71.8	138.8	207.7	3.2	23.2	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	8.5	49.6	7.4	13.4	37.0	95.6	126.3	221.4	[5]2.5	22.7	(NA)	(NA)
1972 Census	225	248	121	8.7	50.1	7.6	14.0	37.1	86.2	120.5	206.5	2.9	21.2	94	95
INDUSTRY 3142, HOUSE SLIPPERS															
1987 Census	33	36	22	3.7	49.7	2.9	5.5	29.9	110.9	93.2	203.8	2.7	41.6	92	96
1986 ASM[6]	(NA)	(NA)	(NA)	4.7	57.3	3.9	6.6	36.2	103.4	104.3	208.7	[5]6.0	44.4	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	5.7	62.5	4.9	8.7	46.0	112.3	110.6	223.2	[5]4.2	50.5	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	6.5	66.8	5.4	9.3	49.4	133.6	118.5	248.4	[5]4.1	53.1	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	6.4	64.2	5.4	9.8	45.8	128.9	108.6	241.9	[5]2.6	52.3	(NA)	(NA)
1982 Census	53	62	44	7.5	71.3	6.4	11.2	51.7	149.7	128.6	275.8	3.1	46.1	96	98
1981 ASM	(NA)	(NA)	(NA)	8.8	75.9	7.5	12.7	57.5	149.4	124.2	268.2	3.5	42.3	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.2	74.0	7.7	13.4	55.3	190.9	135.0	323.1	2.3	38.8	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	8.8	66.2	7.5	12.6	48.1	150.4	109.9	261.0	1.5	32.5	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	8.1	58.9	6.9	11.6	42.8	136.0	101.5	232.0	2.5	37.1	(NA)	(NA)
1977 Census	65	78	55	8.1	54.5	7.0	11.7	39.6	108.8	92.7	201.2	2.3	29.7	94	96
1976 ASM	(NA)	(NA)	(NA)	8.3	49.5	7.0	11.7	36.2	98.0	78.1	175.4	1.1	25.1	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	8.0	47.8	6.8	11.7	34.8	96.2	68.8	165.6	1.3	25.0	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	8.5	50.7	7.2	13.1	36.1	102.0	75.1	174.9	1.2	25.0	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	8.6	46.3	7.1	12.5	32.4	88.9	68.7	157.1	[5]1.5	25.3	(NA)	(NA)
1972 Census	82	91	66	8.5	48.1	7.1	12.7	33.4	85.7	66.5	151.4	1.6	23.6	95	87
INDUSTRY 3143, MEN'S FOOTWEAR, EXCEPT ATHLETIC															
1987 Census	106	151	110	31.5	432.1	27.4	51.0	325.0	1 035.2	1 034.0	2 071.4	17.0	439.3	89	94
1986 ASM	(NA)	(NA)	(NA)	31.8	416.6	28.0	49.3	315.8	913.1	968.8	1 891.4	[5]16.2	358.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	34.9	435.9	30.8	53.8	336.8	1 051.4	1 031.8	2 070.5	28.9	365.3	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	40.1	472.7	35.3	61.5	368.4	1 118.9	1 104.0	2 230.6	28.0	374.9	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	43.0	494.1	38.0	67.1	380.8	1 138.7	1 120.5	2 264.0	18.8	386.5	(NA)	(NA)
1982 Census	129	203	159	46.5	503.1	40.7	69.6	382.2	1 101.4	1 141.3	2 261.4	28.3	399.2	89	95
1981 ASM	(NA)	(NA)	(NA)	49.2	518.1	43.9	80.1	412.4	1 280.3	1 213.3	2 458.5	47.4	393.9	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	46.7	441.6	41.9	74.2	354.4	1 084.7	1 061.0	2 149.0	22.9	331.3	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	50.8	443.7	45.3	80.4	347.8	957.3	1 039.5	1 964.3	25.5	371.4	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	54.2	444.3	48.8	87.8	351.5	896.5	959.1	1 827.3	18.0	318.5	(NA)	(NA)
1977 Census	115	213	180	55.0	417.0	49.2	90.1	332.2	871.9	880.0	1 734.5	14.5	272.2	92	96
1976 ASM	(NA)	(NA)	(NA)	55.9	395.8	50.8	92.5	321.6	799.8	825.1	1 606.7	16.8	240.2	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	53.9	363.3	48.4	87.9	291.7	740.7	695.9	1 442.8	16.9	214.4	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	59.3	366.1	52.8	96.7	294.6	736.5	692.1	1 425.5	19.8	219.7	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	60.7	364.3	53.9	102.3	293.7	707.2	684.1	1 376.9	20.9	217.4	(NA)	(NA)
1972 Census	115	221	197	61.5	358.1	54.4	106.3	288.9	674.4	623.0	1 288.9	14.3	193.0	93	97
INDUSTRY 3144, WOMEN'S FOOTWEAR, EXCEPT ATHLETIC															
1987 Census	126	162	123	26.6	320.0	23.7	45.5	253.2	755.8	572.4	1 316.0	10.1	121.5	93	88
1986 ASM	(NA)	(NA)	(NA)	30.2	341.9	26.3	46.5	269.8	812.3	597.8	1 425.9	[5]13.8	180.5	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	34.3	378.8	30.3	54.9	296.1	919.6	684.1	1 613.0	12.3	206.8	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	40.7	431.2	36.1	63.7	338.9	987.1	737.1	1 728.1	23.2	222.6	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	46.5	495.4	41.5	74.4	393.6	1 156.2	809.9	1 957.7	22.8	229.9	(NA)	(NA)
1982 Census	209	293	226	48.4	483.1	43.4	77.1	392.9	1 107.0	821.9	1 933.2	20.2	214.5	94	90
1981 ASM	(NA)	(NA)	(NA)	52.0	494.7	46.2	82.9	383.9	1 086.6	864.5	1 913.8	29.4	235.4	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	52.4	453.4	46.1	81.8	354.2	955.1	779.0	1 733.5	21.4	178.1	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	53.3	421.4	47.1	83.6	334.5	845.2	727.9	1 565.8	19.7	182.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	56.2	408.7	50.5	89.4	336.2	798.4	643.9	1 428.4	12.4	165.9	(NA)	(NA)

See footnotes at end of table.

Table 1. Historical Statistics for the Industry: 1987 and Earlier Years—Con.

[Excludes data for auxiliaries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix]

Year[1]	Companies[2] (no.)	All establishments[3] Total (no.)	All establishments[3] With 20 employees or more (no.)	All employees Number (1,000)	All employees Payroll (million dollars)	Production workers Number (1,000)	Production workers Hours (millions)	Production workers Wages (million dollars)	Value added by manufacture[4] (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories[4] (million dollars)	Ratios Specialization (percent)	Ratios Coverage (percent)
INDUSTRY 3144, WOMEN'S FOOTWEAR, EXCEPT ATHLETIC—Con.															
1977 Census	243	328	241	57.6	388.6	51.3	91.3	315.6	755.0	607.1	1 361.2	9.7	147.4	97	92
1976 ASM	(NA)	(NA)	(NA)	61.0	397.1	54.2	97.7	319.6	727.5	610.9	1 326.7	9.2	148.5	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	60.4	368.7	54.0	95.5	292.8	671.1	551.5	1 226.5	10.4	145.2	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	64.7	365.7	57.8	102.4	297.7	687.8	555.6	1 243.2	15.0	142.6	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	71.8	390.7	64.8	116.8	319.1	756.8	573.1	1 325.5	11.7	151.3	(NA)	(NA)
1972 Census	296	422	316	77.4	408.4	70.0	128.5	334.3	763.6	591.6	1 346.1	14.8	141.7	97	92
INDUSTRY 3149, FOOTWEAR, EXCEPT RUBBER, N.E.C.															
1987 Census	114	122	59	8.8	102.9	7.6	14.0	76.8	203.1	190.7	394.0	6.5	78.2	94	81
1986 ASM	(NA)	(NA)	(NA)	9.2	111.4	7.9	13.8	79.3	232.5	254.3	481.7	5.7	93.3	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	11.2	125.6	9.7	17.2	92.1	274.0	272.2	541.4	7.9	90.7	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	14.0	155.2	12.1	21.1	110.1	363.2	311.2	676.2	8.6	106.4	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	17.4	182.9	15.2	26.7	137.1	426.0	333.8	764.5	7.7	122.0	(NA)	(NA)
1982 Census	167	193	107	19.1	192.7	16.8	28.7	146.8	450.9	352.8	798.9	14.0	130.2	82	81
1981 ASM	(NA)	(NA)	(NA)	23.4	226.2	20.4	37.2	175.9	471.1	395.2	855.7	[2]23.8	137.1	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	26.6	234.7	23.3	41.6	184.6	514.7	395.0	901.3	[2]21.3	153.3	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	25.5	207.9	22.5	39.9	158.8	378.5	309.9	697.2	[2]13.3	133.7	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	25.2	189.4	22.3	38.4	146.6	352.8	308.2	653.6	[2]7.8	122.3	(NA)	(NA)
1977 Census	159	192	127	24.8	171.4	21.8	38.2	135.1	333.7	269.3	594.8	10.6	108.7	84	83
1976 ASM	(NA)	(NA)	(NA)	24.3	169.3	21.2	37.7	133.6	357.1	288.1	638.0	7.4	94.6	(NA)	(NA)
1975 ASM	(NA)	(NA)	(NA)	23.5	154.0	20.0	36.9	118.3	317.9	247.9	574.7	6.6	86.6	(NA)	(NA)
1974 ASM	(NA)	(NA)	(NA)	29.6	178.7	25.5	46.5	140.2	333.3	260.1	589.4	9.1	98.9	(NA)	(NA)
1973 ASM	(NA)	(NA)	(NA)	28.8	165.2	25.3	46.8	130.6	302.4	231.9	524.6	10.1	96.0	(NA)	(NA)
1972 Census	152	183	133	28.7	158.1	25.6	46.9	124.9	272.5	207.9	485.8	6.4	75.4	88	86

Note: Establishments of single unit companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. Data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were estimated based on administrative-record information from other agencies in conjunction with industry averages. These establishments accounted for the following percent of total value of shipments: SIC 3111, 7%; SIC 3131, 8%; SIC 3142, 2%; SIC 3143, 1%; SIC 3144, 5%; SIC 3149, 7%.

[1]In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1972, see 1972 Census of Manufactures, vol. II, table 1a of the Industry chapter.

[2]For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

[3]Includes establishments with payroll at any time during year.

[4]Beginning with the 1982 Census of Manufactures, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior Censuses and annual surveys of manufactures in which respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, inventories and value added by manufacture are not comparable to prior-year data.

[5]Data either have associated standard errors exceeding 15 percent or are not consistent with other census series and related data; thus, these estimates may be of limited reliability.

[6]Estimates for new capital expenditures have associated standard error of 15 percent or more and may be of limited reliability. Estimates for other data items are of acceptable reliability.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987 Number of companies with shipments of $100,000 or more	1987 Product shipments[1] Quantity[2]	1987 Product shipments[1] Value (million dollars)	1982 Number of companies with shipments of $100,000 or more	1982 Product shipments[1] Quantity[2]	1982 Product shipments[1] Value (million dollars)
3111- --	**LEATHER TANNING AND FINISHING**						
	Total	**(NA)**	**(X)**	**2 210.0**	**(NA)**	**(X)**	**1 706.2**
31116 —	Finished and unfinished leather	(NA)	(X)	1 909.9	(NA)	(X)	1 400.2
	Finished cattle hide and kip side leathers:						
	Full grain and grain split, except offal and welting leather (heads, shoulders, bellies, etc.):						
31116 11	Sole leather — mil sq ft	10	44.6	105.1	6	[5]54.9	100.0
31116 15	Bag, case, and strap leather (sides) — do.	11	29.5	60.4	13	43.6	55.2
31116 19	Upholstery leather—top grains and machine buffs (hides) — do.	17	238.9	453.3	8	73.3	112.5
31116 24	Upper leather, including patent (sides) — do.	30	333.0	632.7	44	438.0	640.6
31116 27	Garment leather (sides) — do.	14	28.0	42.3	14	35.4	41.7
31116 29	Other grains, including flat and handbag leather, lining leather (sides), and belting and mechanical leather — do.	26	213.2	172.5	26	109.9	66.4
31116 33	Offal (heads, shoulders, bellies, etc.) except splits and welting leather but including sole leather, waist belt leather, and welting leather grains — do.	13	29.4	22.5	18	45.7	24.3
31116 35	Finished splits, including shoulder splits, deep buffs, buffing, and fleshers — do.	17	71.2	49.7	29	[5]168.1	77.5

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
3111- —	**LEATHER TANNING AND FINISHING**—Con.						
31116 —	Finished and unfinished leather—Con.						
	Unfinished cattle hide and kip side leathers:						
31116 37	Wet blues ..... 1,000 hides (whole hide equiv)	17	188.8	120.0	(NA)	(3)	(3)
31116 38	Other ..... do	19	196.2	138.9	(NA)	(3)	(3)
31116 43	Finished and unfinished all calf and whole kip leathers ..... mil sq ft	3	42.4	62.0	(NA)	7.9	23.6
	Finished and unfinished sheep and lamb leathers:						
31116 51	Garment ..... mil sq ft	8			(NA)	41.3	44.1
31116 57	Other (including glove, shoe, fleshers, skivers, and shearlings) ..... do	10	18.9	30.0	(NA)	(S)	24.6
	Other finished and unfinished leathers:						
31116 62	Goat and kid leathers ..... mil sq ft	2	(D)	(*)	(NA)	14.6	24.4
31116 63	Pig skin leathers ..... do	2	(D)	(*)	(NA)	(X)	[3]121.6
31116 65	Other animal leathers (including cabretta, horse, colt, mule, ass, and pony leathers)	11	(X)	15.9			
31116 00	Finished and unfinished leather, n.s.k.	(NA)	(X)	[4]4.7	(NA)	(X)	43.8
31119 —	Contract and commission receipts for tanning or finishing leather owned by others:						
31119 00	Contract and commission receipts for tanning or finishing leather owned by others	43	(X)	149.3	(NA)	(X)	231.9
31110 —	Leather tanning and finishing products, n.s.k.	(NA)	(X)	150.8	(NA)	(X)	74.2
31110 00	Leather tanning and finishing products, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	36.5	(NA)	(X)	55.2
31110 02	Leather tanning and finishing products, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	114.3	(NA)	(X)	19.0
3131- —	**FOOTWEAR CUT STOCK**						
	Total	**(NA)**	**(X)**	**335.6**	**(NA)**	**(X)**	**346.8**
31310 —	Boot and shoe cut stock and findings:						
31310 16	Outer soles and innersoles of leather ..... mil doz pairs	20	2.9	90.1	20	**3.1	80.4
31310 31	Other leather cut stock (heels, counters, box toes, taps, etc.)	26	(X)	63.2	26	(X)	62.4
31310 61	Other boot and shoe cut stock and findings (wood heel blocks made for sale as such, finished wood heels, shanks, welting, etc.)	36	(X)	149.2	48	(X)	159.2
31310 00	Footwear cut stock, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	15.5	(NA)	(X)	39.0
31310 02	Footwear cut stock, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	17.5	(NA)	(X)	5.9
3142- —	**HOUSE SLIPPERS**						
	Total	**(NA)**	**(X)**	**184.1**	**(NA)**	**(X)**	**265.3**
31420 —	House slippers:						
31420 60	House slippers, all types, except slipper socks (for additional detail, see Current Industrial Report MA-31A, Footwear) ..... mil pairs	25	46.4	169.1	36	64.2	240.3
31420 71	Slipper socks, made from purchased socks ..... do	7	(X)	10.4	2	(D)	(D)
31420 00	House slippers, n.s.k., typically for establishments with 10 employees or more (see note)	(NA)	(X)	1.5	(NA)	(X)	(D)
31420 02	House slippers, n.s.k., typically for establishments with less than 10 employees (see note)	(NA)	(X)	3.2	(NA)	(X)	1.9
3143- —	**MEN'S FOOTWEAR, EXCEPT ATHLETIC**						
	Total	**(NA)**	**(X)**	**1 809.9**	**(NA)**	**(X)**	**1 971.2**
31430 —	Men's footwear, except athletic (size run 6 and larger):						
31430 00	Men's footwear, except athletic (size run 6 and larger) (for additional detail, see Current Industrial Report MA-31A, Footwear) ..... mil pairs	91	69.6	1 793.8	(NA)	61.4	1 966.1
31430 02	Men's footwear, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	16.1	(NA)	(X)	5.1
3144- —	**WOMEN'S FOOTWEAR, EXCEPT ATHLETIC**						
	Total	**(NA)**	**(X)**	**1 374.4**	**(NA)**	**(X)**	**1 994.1**
31440 —	Women's footwear, except athletic (size run 4 and larger):						
31440 00	Women's footwear, except athletic (size run 4 and larger) (for additional detail, see Current Industrial Report MA-31A, Footwear) ..... mil pairs	126	83.0	1 363.6	(NA)	139.9	1 984.3
31440 02	Women's footwear, n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	10.8	(NA)	(X)	9.8

See footnotes at end of table.

Table 2. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1987 and 1982—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For further explanation, see Value of Shipments in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 product code	Product	1987			1982		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
3149- --	**FOOTWEAR, EXCEPT RUBBER, N.E.C.**						
	Total	**(NA)**	**(X)**	**426.6**	**(NA)**	**(X)**	**721.7**
31490 --	Footwear, except rubber, n.e.c.:						
31490 10	Athletic shoes, except rubber sole/fabric upper (size run 4 and larger) (for additional detail, see Current Industrial Report MA-31A, Footwear) mil pairs	25	9.4	130.6	30	16.6	219.3
31490 20	All other footwear, including youths' and boys', misses', children's, and infants' (excluding rubber footwear and slippers) (for additional detail, see Current Industrial Report MA-31A, Footwear) do	55	36.5	272.5	(NA)	54.0	462.7
31490 00	Footwear, except rubber, n.e.c., n.s.k., typically for establishments with 5 employees or more (see note)	(NA)	(X)	7.8	(NA)	(X)	14.1
31490 02	Footwear, except rubber, n.e.c., n.s.k., typically for establishments with less than 5 employees (see note)	(NA)	(X)	15.7	(NA)	(X)	25.6

Note: In 1987 Census of Manufactures, data for establishments of small single unit companies with up to 20 employees were estimated from administrative-record data rather than data actually collected from respondents. Employment cutoffs used for administrative-records for each industry and shipments figures are included in code ending with "002". In both 1987 and 1982 Censuses of Manufactures, products not completely identified on standard forms were coded in appropriate product class (five-digit) followed by "00" or to appropriate product group code (four-digit) followed by "000".

[1]Data reported by all producers, not just those with shipments of $100,000 or more.
[2]For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).
[3]For 1982, data for product codes 3111637 and 3111638 were included with product code 3111665.
[4]For 1987, data for product codes 3111662 and 3111663 were included with product code 3111600.

Table 3. Materials Consumed by Kind: 1987 and 1982

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity[1]	Delivered cost (million dollars)	Quantity[1]	Delivered cost (million dollars)
	INDUSTRY 3111, LEATHER TANNING AND FINISHING				
	Materials, containers, and supplies	**(X)**	**1 386.8**	**(X)**	**1 013.9**
201191	Hides, skins, and pelts	(X)	974.4	(X)	633.1
280021	Tanning materials, dressings, dyes, and finishing agents	(X)	237.9	(X)	210.9
	Finished leather:				
311102	Upper leather	(X)	11.7	(X)	2.9
311112	Soling leather (including innersole)	(X)	1.6	(X)	3.3
311108	Other finished leather	(X)	10.3	(X)	16.7
970099	All other materials, containers, and supplies	(X)	41.0	(X)	42.5
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	109.9	(X)	104.5
	INDUSTRY 3131, FOOTWEAR CUT STOCK				
	Materials, containers, and supplies	**(X)**	**182.4**	**(X)**	**196.8**
201191	Hides, skins, and pelts	(X)	11.9	(X)	4.3
280021	Tanning materials, dressings, dyes, and other finishing agents	(X)	.8	(X)	2.5
	Finished leather:				
311102	Upper leather	(X)	5.2	(X)	11.3
311112	Soling leather (including innersole)	(X)	52.1	(X)	50.0
311108	Other finished leather	(X)	11.6	(X)	22.8
970099	All other materials, containers, and supplies	(X)	84.3	(X)	82.1
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	16.5	(X)	23.8
	INDUSTRY 3142, HOUSE SLIPPERS				
	Materials, containers, and supplies	**(X)**	**77.8**	**(X)**	**117.6**
	Cut stock and findings:				
300115	Plastics and natural and synthetic rubber	(X)	2.0		
306965	Rubber and elastomer resin soling slabs and top lift sheets	(X)	7.9	(X)	12.0
308010	Composition and nuclear	(X)	.1		
313108	Leather and other	(X)	4.2		
	Finished leather:				
311111	Upper leather, including lining mil sq ft	9.3	12.0		
311112	Soling leather, including innersole mil pair	1.2	1.6	(NA)	3.2
311107	All other finished leather	(X)	.1		
229503	Plastics coated, impregnated, or laminated fabrics 1,000 sq yd	10.1	21.7	16.6	31.1
260091	Paper and paperboard containers and other paper packaging supplies	(X)	3.0	(X)	3.8

See footnotes at end of table.

Table 3. **Materials Consumed by Kind: 1987 and 1982**—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. For further explanation, see Cost of Materials in appendix. For meaning of abbreviations and symbols, see introductory text]

1987 material code	Material	1987		1982	
		Quantity[1]	Delivered cost (million dollars)	Quantity[1]	Delivered cost (million dollars)
	INDUSTRY 3142, HOUSE SLIPPERS—Con.				
970099	All other materials, containers, and supplies	(X)	23.1	(X)	26.2
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	2.1	(X)	40.5
	INDUSTRY 3143, MEN'S FOOTWEAR, EXCEPT ATHLETIC				
	Materials, containers, and supplies	**(X)**	**893.2**	**(X)**	**990.5**
	Cut stock and findings:				
300115	Plastics and natural and synthetic rubber	(X)	20.9	(X)	29.0
306965	Rubber and elastomer resin soling slabs and top lift sheets	(X)	31.5	(X)	38.7
308010	Composition and nuclear	(X)	22.0	(X)	33.8
313108	Leather and other	(X)	80.8	(X)	63.3
	Finished leather:				
311111	Upper leather, including lining, mil sq ft	227.4	413.1	*254.3	372.7
311112	Soling leather, including innersole, mil pairs	35.3	71.1	*39.9	75.9
311107	All other finished leather	(X)	51.6	(X)	61.0
229503	Plastics coated, impregnated, or laminated fabrics, 1,000 sq yd	8.7	31.8	*4.8	19.4
260091	Paper and paperboard containers and other paper packaging supplies	(X)	20.4	(X)	23.3
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes, including cellophane	(X)	2.9	(X)	1.4
970099	All other materials, containers, and supplies	(X)	134.6	(X)	211.5
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	12.5	(X)	60.5
	INDUSTRY 3144, WOMEN'S FOOTWEAR, EXCEPT ATHLETIC				
	Materials, containers, and supplies	**(X)**	**545.0**	**(X)**	**769.4**
	Cut stock and findings:				
300115	Plastics and natural and synthetic rubber	(X)	22.0	(X)	26.7
306965	Rubber and elastomer resin soling slabs and top lift sheets	(X)	33.8	(X)	51.6
308010	Composition and nuclear	(X)	1.3	(X)	19.4
313108	Leather and other	(X)	26.7	(X)	47.4
	Finished leather:				
311111	Upper leather, including lining, mil sq ft	105.0	205.2	*134.4	200.7
311112	Soling leather, including innersole, mil pairs	37.5	35.5	*24.4	28.4
311107	All other finished leather	(X)	13.1	(X)	30.3
229503	Plastics coated, impregnated, or laminated fabrics, 1,000 sq yd	10.7	39.0	**13.1	48.0
260091	Paper and paperboard containers and other paper packaging supplies	(X)	16.4	(X)	34.4
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes, including cellophane	(X)	36.3	(X)	196.6
970099	All other materials, containers, and supplies	(X)	90.1		
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	25.6	(X)	85.9
	INDUSTRY 3149, FOOTWEAR, EXCEPT RUBBER, N.E.C.				
	Materials, containers, and supplies	**(X)**	**168.0**	**(X)**	**291.7**
	Cut stock and findings:				
300115	Plastics and natural and synthetic rubber	(X)	16.3	(X)	7.4
306965	Rubber and elastomer resin soling slabs and top lift sheets	(X)	21.9	(X)	7.9
308010	Composition and nuclear	(X)	2.2	(X)	8.6
313108	Leather and other	(X)	8.2	(X)	16.3
	Finished leather:				
311111	Upper leather, including lining, mil sq ft	23.4	42.9	*52.7	80.9
311112	Soling leather, including innersole, mil pairs	12.5	5.9	(D)	(D)
311107	All other finished leather	(X)	1.4	(X)	(D)
229503	Plastics coated, impregnated, or laminated fabrics, 1,000 sq yd	4.6	16.4	*2.9	8.4
260091	Paper and paperboard containers and other paper packaging supplies	(X)	5.6	(X)	9.5
308007	Plastics products consumed in the form of sheets, rods, tubes, and other shapes, including cellophane	(X)	6.7	(X)	2.1
970099	All other materials, containers, and supplies	(X)	26.1	(X)	82.2
971000	Materials, containers, and supplies, n.s.k.[2]	(X)	14.4	(X)	44.5

[1]For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: * 10 to 19 percent estimated; ** 20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).

[2]Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

APPENDIX
Scope and Coverage and Explanation of Terms

GENERAL

The 1987 Census of Manufactures is the 32nd census of manufacturing establishments conducted in the United States. For 1987, it was conducted as part of the economic censuses, which included the censuses of mineral industries, construction industries, retail and wholesale trades, service industries, selected transportation activities, and minority-owned and women-owned businesses, under authority of title 13 of the United States Code. Title 13 specifies that an economic census be conducted every 5 years to cover years ending in 2 and 7.

SCOPE AND COVERAGE

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. All manufacturing establishments with one paid employee or more at any time during the year are covered by the census of manufactures. Therefore, a company operating at more than one location is required to file a separate report for each location. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units which service manufacturing establishments of the same company. Where these auxiliary operations are conducted at the same location as the manufacturing operation, they are usually included in the report for the operating manufacturing establishment.

Use of Administrative Records

From a universe of approximately 350,000 manufacturing establishments in the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of the small establishment nonmail cases was done on an industry-by-industry basis. A variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. The cutoffs were selected so the administrative-record cases would account for approximately 3 percent or less of the value of shipments for the industry. These cutoffs were then adjusted so that all single-establishment companies with less than 5 employees were excluded from the mail canvass, while all establishments with more than 20 employees were included. Where establishments in the 5 to 20 employee size range were included in the mail canvass, an abbreviated census form was frequently used.

For these nonmail establishments, (and a small number of larger establishment whose reports were not received at the time the data were tabulated) data on employment, payroll, and receipts were obtained from administrative records of other government agencies rather than from census forms. The administrative-record information was then used in conjunction with industry averages to estimate the data for these establishments. The value of shipments and cost of materials were not distributed among specific products and materials but were included in the product and material "not specified by kind" (n.s.k.) categories.

EXPLANATION OF TERMS

Number of establishments and companies–A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

All employees–Includes all full-time and part-time employees on the payrolls at any time during the year. Included are all persons on paid sick leave, paid holidays, and paid vacations. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The "all employees" number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average of those for midmonth payroll periods of March, May, August, and November.

Production workers–Includes workers up through the working-supervisor level engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., powerplant), recordkeeping, and other closely associated services. Truckdrivers delivering ready-mixed concrete are also included in production workers.

Other employees–Includes nonproduction personnel, including those engaged in the following activities: supervision above working-supervisor level, sales (including driver/salespersons), sales delivery (truckdrivers and helpers), advertising, credit collection, installation and

servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional, and technical employees.

Payroll–Includes the gross earnings for the "employees" defined above, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Respondents were told that in reporting they could follow the definition of payrolls used for calculating the Federal withholding tax.

Production-worker hours–Covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave when the employee was not at the plant.

Cost of materials–Refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these materials. It includes the cost of materials or fuels consumed, regardless of whether they were purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

The important components of this cost item are (a) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year; (b) electric energy purchased; (c) fuels consumed for heat, power, or generating electricity; (d) work done by others on materials or parts furnished by manufacturing establishments (contract work); and (e) products bought and resold in the same condition.

Specific materials consumed (table 3)–In addition to the total cost of materials which every establishment was required to report, information was also collected for most manufacturing industries on the consumption of major materials used in manufacturing. These inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Establishments consuming less than a specified amount (usually $10,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which administrative records were used was estimated as "not specified by kind" (n.s.k.).

Value of shipments and other receipts–Generally refers to received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair receipts, sale of scrap, and sale of products bought and resold without further processing. Included are all items made by or for the establishment from materials owned by it whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

In a few industries, the value of production or value of work completed is used instead of value of shipments. These industries are identified in the introduction and are footnoted in table 1.

In the case of multiunit companies, the manufacturer was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, that is, including not only the direct costs of production but also a reasonable proportion of "all other costs" (including company overhead and profit).

Shipments or production of individual products (table 2)–In the 1987 census, detailed shipment information was collected for approximately 11,000 individual products. These products are identified by a seven-digit code and are grouped into approximately 1,500 classes of products, which in turn are primary to 459 four-digit industries. Data at the five-digit product-class level have been collected each year as part of the annual survey of manufactures. Information at the seven-digit level, collected for many industries in the current industrial reports program, is not included in this table.

Value added by manufacture–This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments for products manufactured plus receipts for services rendered. The result of this calculation is then adjusted by the addition of value added by merchandising operations (that is, the difference between the sales value and cost of merchandise sold without further manufacturing, processing, or assembly) plus the net change in finished goods and work-in-process inventories between the beginning and end of the year.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1), value added is adjusted only for the change in work-in-process inventories between the beginning and end of the vear. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

Value added avoids the duplication in the figure for value of shipments which results from the use of products of some establishments as materials by others. Value

added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

Expenditures for new plant and equipment–Establishments in operation and any known plants under construction were asked to report their expenditures for (a) permanent additions and major alterations to manufacturing establishments and (b) new machinery and equipment used for replacement and additions to plant capacity if they are of the type for which depreciation accounts are ordinarily maintained.

These totals exclude expenditures for used plant and equipment, expenditures for land, and cost of maintenance and repairs charged as current operating expenses. Data for used plant and equipment will be published in the final industry bulletin.

End-of-year inventories–Comprised of (a) finished products; (b) work-in-process; and (c) materials, supplies, fuels, etc. Beginning in 1982, respondents were asked to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from prior years in which respondents were permitted to value their inventories using any generally accepted accounting method. Therefore, 1982 through 1987 data for inventories are not strictly comparable to prior-year data.

Specialization and coverage ratios–An establishment is classified in a particular industry if its shipments of primary products of the industry exceed in value its shipments of the products of any other single industry. An establishments' shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). The following ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in table 1 and data on product shipments shown in table 2.

Specialization ratio–Represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio–Represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments, wherever classified.